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LIPOPHILIC INORGANIC FILLER AND COMPOSITE RESIN COMPOSITION

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Abstract

PROBLEM TO BE SOLVED: To obtain a lipophilic inorg. filler well swollen with a small amt. of org. cations and improving the heat resistance and rigidity of a composite resin compsn. having a high aspect ratio. SOLUTION: Org. cations are intercalated into a swellable silicate represented by the formula [Aa (Xb Yc) (Si4-d Ald)O12 (OHe F2-e)] and having >=2&mu m average grain diameter of single crystal grains, 70-250&angst <2> /charge charge density and a smectite structure to obtain the objective lipophilic inorg. filler. In the formula, 0.2<=a<=0.7, 0<=b<=3, 0<=c<=2, 0<=d<=4, 0<=e<=2, A is at least one cation selected from among alkali metal ions and alkaline earth metal ions, X and Y are cations entering into each octahedron in the smectite structure, X is at least one among Mg, Fe, Mn, Ni, Zn and Li, and Y is at least one among Al, Fe, Mn and Cr.